Patent claims

1. Compounds of formula I

in which

R1 is hydrogen or 1-4C-alkyl,

is hydrogen, halogen, hydroxyl, nitro, amino, 1-7C-alkyl, trifluoromethyl, 3-7C-cycloalkyl, 3-7C-cycloalkyl, 1-4C-alkoxy, completely or predominantly fluorine-substituted 1-4C-alkoxy, 1-4C-alkoxy-1-4C-alkoxy-1-4C-alkoxy, 1-4C-alkoxycarbonyl, mono- or di-1-4C-alkylaminosulfonyl, 1-4C-alkylcarbonylamino, 1-4C-alkylaminosulfonyl, 1-4C-alkylcarbonylamino, 1-4C-alkylsulfonylamino, phenyl, R21- and/or R211-substituted phenyl, phenyl-1-4C-alkyl, phenyl-1-4C-alkyl wherein the phenyl moiety is substituted by R22, phenyl-1-4C-alkoxy, pyridyl, pyridyl substituted by R23, pyridyl-1-4C-alkyl, pyridyl-1-4C-alkyl wherein the pyridyl moiety is substituted by R24, in which

R21 is cyano, halogen, carboxyl, 1-4C-alkyl, 1-4C-alkoxy, aminocarbonyl, mono- or di-1-4C-alkylaminocarbonyl, 1-4C-alkylcarbonylamino, 1-4C-alkoxycarbonyl, aminosulfonyl, mono- or di-1-4C-alkylamino, trifluoromethyl, hydroxyl, phenylsulfonylamino, phenyl-1-4C-alkoxy, or -S(O)₂-Het, in which

Het is bonded to the adjacent sulfonyl group via a ring nitrogen atom, and is a 3- to 7-membered fully saturated heterocyclic ring comprising one nitrogen atom, to which the sulfonyl group is attached, and optionally one further heteroatom selected from N(R210), oxygen and sulfur, in which

R210 is 1-4C-alkyl,

R211 is halogen or 1-4C-alkoxy,

R22 is halogen, 1-4C-alkyl or 1-4C-alkoxy,

R23 is halogen, 1-4C-alkyl or 1-4C-alkoxy,

R24 is halogen, 1-4C-alkyl or 1-4C-alkoxy,

R3 is hydrogen, halogen, 1-4C-alkyl or 1-4C-alkoxy,

R4 is 1-4C-alkyl, or 1-4C-alkoxy,

and the salts, the N-oxides and the salts of the N-oxides of these compounds.

- 2. Compounds of formula I as claimed in claim 1 in which
- R1 is hydrogen or 1-2C-alkyl,

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R2 is hydrogen, halogen, phenyl, or R21- and/or R211-substituted phenyl, in which

R21 is 1-4C-alkyl, cyano, halogen, mono- or di-1-4C-alkylamino, trifluoromethyl, mono- or di-1-4C-alkylaminosulfonyl, hydroxyl, phenyl-1-4C-alkoxy, or -S(O)₂-Het, in which

Het is azetidin-1-yl, pyrrolidin-1-yl, piperidin-1-yl, or 4N-(R210)-piperazin-1-yl, in which

R210 is 1-4C-alkyl,

R211 is halogen,

R3 is hydrogen,

R4 is methyl, or methoxy,

and the salts, the N-oxides and the salts of the N-oxides of these compounds.

- 3. Compounds of formula I as claimed in claim 1 in which
- R1 is hydrogen, methyl or ethyl,
- R2 is hydrogen, iodine, bromine, phenyl, or R21- and/or R211-substituted phenyl, in which
- R21 is methyl, cyano, chlorine, fluorine, dimethylamino, trifluoromethyl, dimethylaminosulfonyl, hydroxyl, benzyloxy, or -S(O)₂-Het, in which

Het is azetidin-1-yl, pyrrolidin-1-yl, piperidin-1-yl, or 4N-methyl-piperazin-1-yl, in which

R211 is chlorine,

R3 is hydrogen,

R4 is methyl, or methoxy,

and the salts, the N-oxides and the salts of the N-oxides of these compounds.

- 4. Compounds of formula I as claimed in claim 1 in which
- R1 is hydrogen or methyl,
- R2 is bonded in the 6-position of the 3H-imidazo[4,5-b]pyridine ring, and is hydrogen, iodine, bromine, phenyl, 3-hydroxyl-phenyl, 4-(R21)-phenyl, or 3,5-di-chloro-phenyl, in which
- R21 is methyl, cyano, chlorine, fluorine, dimethylamino, trifluoromethyl, dimethylaminosulfonyl, benzyloxy, or -S(O)₂-Het, in which
- Het is azetidin-1-yl, pyrrolidin-1-yl, piperidin-1-yl, or 4N-methyl-piperazin-1-yl, in which
- R3 is hydrogen,
- R4 is methyl, or methoxy,

and the salts, the N-oxides and the salts of the N-oxides of these compounds.

- 5. Compounds of formula I as claimed in claim 1 in which
- R1 is hydrogen or 1-4C-alkyl,
- is hydrogen, halogen, hydroxyl, nitro, amino, 1-7C-alkyl, trifluoromethyl, 3-7C-cycloalkyl, 3-7C-cycloalkyl, 1-4C-alkoxy, completely or predominantly fluorine-substituted 1-4C-alkoxy, 1-4C-alkoxy-1-4C-alkoxy-1-4C-alkoxy-1-4C-alkoxy-1-4C-alkoxy-1-4C-alkoxy-1-4C-alkoxy-1-4C-alkoxy-1-4C-alkylaminosulfonyl, 1-4C-alkylamino, 1-4C-alkylamino, 1-4C-alkylamino, 1-4C-alkylamino, 1-4C-alkylaminosulfonyl, 1-4C-alkylamino, 1-4C-alkylamino, 1-4C-alkylamino, 1-4C-alkylaminosulfonyl, 1-4C-alkylamino, 1-4C-alkylaminosulfonyl, 1-4C-

alkylsulfonylamino, phenyl, R21- and/or R211-substituted phenyl, phenyl-1-4C-alkyl, phenyl-1-4C-alkyl wherein the phenyl moiety is substituted by R22, phenyl-1-4C-alkoxy, pyridyl, pyridyl substituted by R23, pyridyl-1-4C-alkyl, pyridyl-1-4C-alkyl wherein the pyridyl moiety is substituted by R24, in which

is cyano, halogen, carboxyl, 1-4C-alkyl, 1-4C-alkoxy, aminocarbonyl, mono- or di-1-4C-alkylaminocarbonyl, 1-4C-alkylcarbonylamino, 1-4C-alkoxycarbonyl, aminosulfonyl, mono- or di-1-4C-alkylaminosulfonyl, amino, mono- or di-1-4C-alkylamino, trifluoromethyl, hydroxyl, phenylsulfonylamino or phenyl-1-4C-alkoxy,

R211 is halogen or 1-4C-alkoxy,

R22 is halogen, 1-4C-alkyl or 1-4C-alkoxy,

R23 is halogen, 1-4C-alkyl or 1-4C-alkoxy,

R24 is halogen, 1-4C-alkyl or 1-4C-alkoxy,

R3 is hydrogen, halogen, 1-4C-alkyl or 1-4C-alkoxy,

R4 is 1-4C-alkyl,

and the salts, the N-oxides and the salts of the N-oxides of these compounds.

6. Compounds of formula I as claimed in claim 1 in which

R1 is hydrogen, methyl or ethyl,

R2 is hydrogen, iodine, bromine, phenyl, or R21-substituted phenyl, in which

R21 is methyl, cyano, chlorine, fluorine, dimethylamino or trifluoromethyl,

R3 is hydrogen,

R4 is methyl,

and the salts, the N-oxides and the salts of the N-oxides of these compounds.

- 7. Compounds of formula I as claimed in claim 1 in which
- R1 is hydrogen or methyl,
- R2 is R21-substituted phenyl, in which
- R21 is aminosulphonyl, mono- or di-1-4C-alkylaminosulfonyl, or -S(O)2-Het, in which
- Het is azetidin-1-yl, pyrrolidin-1-yl, piperidin-1-yl, or 4N-(1-4C-alkyl)-piperazin-1-yl,
- R3 is hydrogen,
- R4 is methyl, or methoxy,

and the salts, the N-oxides and the salts of the N-oxides of these compounds.

8. Compounds of formula I as claimed in claim 1 which are from formula Ia

in which

R1 is hydrogen,

R4 is methyl or methoxy, and

A is 6-(4-dimethylaminosulphonyl-phenyl)-3H-imidazo[4,5-b]pyridin-2-yl, 6-(4-diethylaminosulphonyl-phenyl)-3H-imidazo[4,5-b]pyridin-2-yl, 6-(4-methylaminosulphonyl-phenyl)-3H-imidazo[4,5-b]pyridin-2-yl, 6-(4-ethylaminosulphonyl-phenyl)-3H-imidazo[4,5-b]pyridin-2-yl, 6-(4-ethylaminosulphonyl-phenyl)-3H-imidazo[4,5-b]pyridin-2-yl,

6-[4-(azetidine-1-sulfonyl)-phenyl]-3H-imidazo[4,5-b]pyridin-2-yl, 6-[4-(pyrrolidine-1-sulfonyl)-phenyl]-3H-imidazo[4,5-b]pyridin-2-yl, 6-[4-(piperidine-1-sulfonyl)-phenyl]-3H-imidazo[4,5-b]pyridin-2-yl, or 6-[4-(4-methyl-piperazine-1-sulfonyl)-phenyl]-3H-imidazo[4,5-b]pyridin-2-yl,

and the salts, the N-oxides and the salts of the N-oxides of these compounds.

9.

Compounds of formula I according to any of the preceding claims comprising one or more of the following:

R1 is hydrogen,

R2 is bonded to the 6-position of the 3H-imidazo[4,5-b]pyridine ring,

R3 is hydrogen, and

R4 is methyl;

and the salts, the N-oxides and the salts of the N-oxides of these compounds.

- 10. A compound according to claim 1 which is selected from the group consisting of:
- 1. 2-[2-(2-Amino-4-methylpyridin-6-yl)ethyl]-3H-imidazo[4,5-b]pyridine
- 2. (R,S)-2-[3-(2-Amino-4-methylpyridin-6-yl)prop-2-yl]-3H-imidazo[4,5-b]pyridine
- 3. (R,S)-2-[4-(2-Amino-4-methylpyridin-6-yl)but-2-yl]-3H-imidazo[4,5-b]pyridine
- 4. 2-[2-(2-Amino-4-methylpyridin-6-yl)ethyl]-6-bromo-3H-imidazo[4,5-b]pyridine
- 5. 2-[2-(2-Amino-4-methylpyridin-6-yl)ethyl]-6-phenyl-3H-imidazo[4,5-b]pyridine
- 2-[2-(2-Amino-4-methylpyridin-6-yl)ethyl]-6-(4-cyano-phenyl)-3H-imidazo[4,5-b]pyridine
- 7. 2-[2-(2-Amino-4-methylpyridin-6-yl)ethyl]-6-p-tolyl-3H-imidazo[4,5-b]pyridine
- 8. 2-[2-(2-Amino-4-methylpyridin-6-yl)ethyl]-6-(4-fluoro-phenyl)-3H-imidazo[4,5-b]pyridine
- 9. 2-[2-(2-Amino-4-methylpyridin-6-yl)ethyl]-6-(4-dimethylamino-phenyl)-3H-imidazo[4,5-b]pyridine
- 10. 2-[2-(2-Amino-4-methylpyridin-6-yl)ethyl]-6-(4-chloro-phenyl)-3H-imidazo[4,5-b]pyridine
- 11. 2-[2-(2-Amino-4-methylpyridin-6-yl)ethyl]-6-(4-iodo-phenyl)-3H-imidazo[4,5-b]pyridine

- 12. 2-[2-(2-Amino-4-methylpyridin-6-yl)ethyl]-6-(4-trifluoromethyl-phenyl)-3H-imidazo[4,5-b]pyridine
- 13. 6-(2-[6-(3-Benzyloxy-phenyl)-3H-imidazo[4,5-b]pyridin-2-yl]-ethyl}-4-methyl-pyridin-2-ylamine
- 14. 6-{2-[6-(3,5-Dichloro-phenyl)-3H-imidazo[4,5-b]pyridin-2-yl]-ethyl}-4-methyl-pyridin-2-ylamine
- 15. 6-{2-[6-(4-Benzyloxy-phenyl)-3H-imidazo[4,5-b]pyridin-2-yl]-ethyl}-4-methyl-pyridin-2-ylamine
- 16. 3-{2-[2-(6-Amino-4-methyl-pyridin-2-yl)-ethyl]-3H-imidazo[4,5-b]pyridin-6-yl}-phenol
- 17. 6-(2-(6-[4-(Azetidine-1-sulfonyl)-phenyl]-3H-imidazo[4,5-b]pyridin-2-yl}-ethyl)-4-methyl-pyridin-2-ylamine
- 18. 4-Methyl-6-(2-{6-[4-(pyrrolidine-1-sulfonyl)-phenyl]-3H-imidazo[4,5-b]pyridin-2-yl}-ethyl)-pyridin-2-ylamine
- 19. 4-Methyl-6-(2-[6-[4-(piperidine-1-sulfonyl)-phenyl]-3H-imidazo[4,5-b]pyridin-2-yl}-ethyl)-pyridin-2-ylamine
- 20. 4-{2-[2-(6-Amino-4-methyl-pyridin-2-yl)-ethyl]-3H-imidazo[4,5-b]pyridin-6-yl}-N,N-dimethyl-benzenesulfonamide
- 21. 4-Methyl-6-(2-{6-[4-(4-methyl-piperazine-1-sulfonyl)-phenyl]-3H-imidazo[4,5-b]pyridin-2-yl}-ethyl)-pyridin-2-ylamine, and
- 22. 2-[2-(2-Amino-4-methoxypyridin-6-yl)ethyl]-3H-imidazo[4,5-b]pyridine; or a salt, N-oxide or a salt of a N-oxide thereof.
- 11. Pharmaceutical compositions containing one or more compounds of formula I according to claim 1 together with the usual pharmaceutical auxiliaries and/or excipients.
- **12.** Use of compounds of formula I according to claim 1 for the production of pharmaceutical compositions for the treatment of acute inflammatory diseases.
- 13. Use of compounds of formula I according to claim 1 for the production of pharmaceutical compositions for the treatment of chronic inflammatory diseases of peripheral organs and the CNS.
- 14. A method for treating acute inflammatory diseases in a patient comprising administering to said patient a therapeutically effective amount of a compound of formula I according to claim 1.
- 15. A method for treating chronic inflammatory diseases of peripheral organs and the CNS in a patient comprising administering to said patient a therapeutically effective amount of a compound of formula I according to claim 1.